

00000000

EPA Region 5 Records Ctr.



248037

PRC

May 20, 1997

Mr. Michael Bellot
Remedial Project Manager
Remedial Response Section No. 1 (SR-6J)
U.S. Environmental Protection Agency Region 5
77 West Jackson Boulevard
Chicago, IL 60604

MAY 22 1997

**Subject: Technical Review of Revised
Leachate Collection System (LCS) Expedited Final Design
Blackwell Forest Preserve Landfill
Contract No. 68-W8-0084, Work Assignment No. 84-5P6Y**

Dear Mr. Bellot:

PRC Environmental Management, Inc. (PRC), has reviewed the above-referenced design for the Blackwell Forest Preserve Landfill in DuPage County, Illinois. The design is dated May 1997 and was prepared by Montgomery Watson (MW) for the DuPage County Forest Preserve District. PRC also reviewed responses to U.S. Environmental Protection Agency (EPA) comments on the LCS expedited final design. PRC reviewed the design to assess whether (1) previous EPA comments were adequately addressed and incorporated into the revised final design and (2) the revised or new material is technically adequate.

PRC's review indicates that most previous EPA comments were adequately addressed and incorporated into the revised final design. However, several issues still remain that need to be addressed before LCS construction begins. These issues are summarized below.

- As discussed in the response to General Comment 1, drawings and details for leachate extraction well and lift station pumps; the compressor station, including the foundation slab; and calculations for sizing the compressor should be provided when the equipment supplier is selected. This information is needed to complete the LCS design.
- As discussed in the response to Specific Comment 1, the operation and maintenance plan for remedial actions at the site should be provided, including criteria for deciding whether to upgrade the proposed passive landfill gas venting system to an active system.
- A specification for silt fences is provided; however, Drawing D1 should show where the silt fences may need to be installed to provide guidance to the contractor.

Mr. Michael Bellot
May 20, 1997
Page 2

MAY 22 1997

- Detail 2 in Drawing D3 shows the landfill gas vent pipe. Support calculations for the concrete pad and concrete footing shown should be provided for completeness. In addition, a note should be added to Detail 2 to clarify whether the concrete pad and concrete footing are connected as shown and, if they are, to provide a specification for the connection.
- The design criteria for the negative pressure calculation in Appendix D2 indicate that the gas flow rate for each extraction well is 10 cubic feet per minute (cfm). The total maximum system gas flow is 100 cfm, and the vacuum required at extraction well EW08 is 15 inches of water column. However, there is no justification for selecting these values for design purposes. According to the response to Specific Comment 2, an active gas collection system will be required if it is determined that uncontrolled gas emissions are occurring through or around the cap. If an active system is deemed necessary, the design gas extraction flow rate and vacuum that will be required will be based on the rate of gas generation and the capture zone necessary to control off-site gas migration. On-site tests using the existing gas extraction wells may be needed to establish design criteria for these parameters and to properly size the blower that will be needed. Appendix D2 should be revised to justify the stated design criteria and to indicate that these criteria will need refinement to properly design an active system.
- Page 11 of the responses states that MW will perform construction quality assurance activities and that an independent third party will perform quality control activities. The text in Appendix F, Section 3.4, Page 3-3 should identify the independent third party.

If you have any questions regarding these comments, please call me at (312) 856-8757.

Sincerely,



Kostas Dovantzis, Ph.D., P.E., D.E.E.
Site Manager

cc: Thomas Short, EPA Project Officer
Marguerite Hendrixson, EPA Contracting Officer
Majid Chaudhry, PRC Program Manager